# Departmental Findings of Fact and Order Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

#### I. REGISTRATION

#### A. Introduction

ExxonMobil Oil Corporation (EMOC) of Bangor, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their petroleum storage and distribution facility.

## B. Emission Equipment

EMOC is licensed to operate the following equipment:

## **Bulk Storage Equipment**

| Tank Number | Vintage | Capacity (gallons) | Product<br>Type    | Roof Type              |
|-------------|---------|--------------------|--------------------|------------------------|
| Tank #9     | 1913    | 473,550            | gasoline           | Internal Floating Roof |
| Tank #11    | 1920    | 342,090            | gasoline           | Internal Floating Roof |
| Tank #16    | 1925    | 1,070,244          | gasoline           | Internal Floating Roof |
| Tank #20    | 1972    | 975,072            | gasoline           | Internal Floating Roof |
| Tank #6     | 1895    | 238,938            | distillate         | Cone Roof Riveted      |
| Tank #18    | 1917    | 179,508            | distillate         | Cone Roof Riveted      |
| Tank #10    | 1920    | 368,130            | distillate         | Cone Roof Riveted      |
| Tank #19    | 1924    | 244,608            | distillate         | Cone Roof Riveted      |
| Tank #8     | 1913    | 996,030            | distillate         | Cone Roof Riveted      |
| Tank #21    | 1990    | 2,898              | petroleum additive | Cone Roof Riveted      |
| Tank #22    | 1991    | 5,000              | petroleum additive | Horizontal             |
| Tank #15    | 1991    | 9,534              | product/water mix  | Cone Roof Riveted      |

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## **Process Equipment**

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| <u>Equipment</u> | Production Rate     | Pollution Control <u>Equipment</u> |
|------------------|---------------------|------------------------------------|
| Loading Rack     | 230,000 gal/4-hours | Vapor Recovery Unit                |

## C. Application Classification

The application for EMOC does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

### II. BEST PRACTICAL TREATMENT (BPT)

#### A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

### B. Bulk Storage Tanks

The nine storage tanks for gasoline, diesel and heating oil have construction dates ranging from 1895 to 1972, and are therefore not subject to 40 CFR Part 60, Subparts K, Ka and Kb due to the applicability dates (constructed prior to June 11, 1973). The two petroleum additive tanks and the product/water tank that were constructed in 1990 and 1991 are not subject to Subparts K and Ka, and have maximum capacities of less than 10,000 gallons each, and are therefore not subject to Kb since the capacities are less than 40 m<sup>3</sup> (10,567 gallons).

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## C. Loading Rack

The Loading Rack has a maximum process capacity of 230,000 gallons per four hour period and consists of three bays. Bay #1 transfers gasoline and distillates, while Bay #3 transfers gasoline only and Bay #4 transfers distillates by toploading only. The Vapor Recovery Unit (VRU) is a carbon adsorption system manufactured by the John Zink Company. EMOC is subject to 40 CFR Part 60, Subpart XX for Bulk Gasoline Terminals constructed or reconstructed after December 17, 1980.

#### D. Annual Emission Restrictions

EMOC shall be restricted to the following annual emissions, based on a 12 month rolling total:

# **Total Allowable Annual Emission for the Facility**

(used to calculate the annual license fee)

| <u>Pollutant</u> | Tons/Year |
|------------------|-----------|
| VOC              | 49.9      |
| single HAP       | 9.9       |
| total HAP        | 24.5      |

### III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the above total facility emissions, EMOC is below the emissions level required for modeling and monitoring.

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Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-202-71-B-R subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.

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- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances

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representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (16) All gasoline storage tanks shall be equipped, maintained, and operated such that:
  - A. There is an internal floating roof with closure seal(s) between the roof edge and the tank wall and these are maintained so as to prevent vapor leakage;
  - B. The internal floating roof and closure seal(s) will be maintained such that there are no holes, tears, or other openings in the seal or between the seal and the floating roof;

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- C. All storage tank openings, except stub drains, are equipped with covers, lids or seals which remain closed at all times;
- D. All automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- E. All rim vents, if provided, are to be set to open only when the roof is being floated off leg supports or at the manufacturers recommended setting;
- F. If any holes, tears or other openings are present the Department shall be notified within 10 days of discovery of such holes, tears, or openings and of the course of action to be taken for repair. EMOC shall demonstrate to the Department that the repairs were made as soon as practicable.
- (17) EMOC shall comply with the following source inspection requirements:
  - A. Routine inspections of floating roofs are conducted through roof hatches once every month.
  - B. A complete inspection of the cover and seal is to be performed at least once every ten years and each time the vessel is emptied and degassed. These inspections shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seals and may be conducted entirely from the top side of the floating roof as long as there is visual access to all deck components.
  - C. Between January 1, 2000 and December 31, 2003, EMOC shall notify the Department at least seventy two (72) hours in advance of emptying and degassing any storage tank and shall not empty and degas any storage tank for the purpose of performing a complete inspection on any day for which the Department has issued an ozone health warning pursuant to 38 M.R.S.A. § 584-F
  - D. Beginning January 1, 2004, EMOC shall not empty and degas any storage tank for the purpose of performing a complete inspection between June 1 and August 31 of each calendar year. The above notwithstanding EMOC may empty and degas a storage vessel for the purpose of performing a repair which is immediately necessary for the proper function of the vessel. An owner or operator must notify the Department within 24 hours if a storage vessel is emptied and degassed for an immediately necessary repair.
- (18) The following records shall be maintained for a period of six years at the source and available for inspection by the Department:
  - A. Inspection log shall be kept documenting any detected leaks, holes, tears, or other openings and the corrective action taken to demonstrate compliance with Condition (16).
  - B. Monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage.
  - C. Calculations showing annual VOC and HAP emissions from equipment seals, and transfer piping and fittings determined in accordance with American

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Petroleum Institute, Manual of Petroleum Measurement Standard, Chapter 19, Section 2, Evaporative Loss from Floating Roof Tanks (method of calculating VOC emissions from tanks).

- D. Average monthly product storage temperatures and maximum true vapor pressures or Reid vapor pressures of volatile petroleum liquids stored.
- (19) The bulk gasoline terminal shall be equipped, maintained and operated with a carbon adsorption system, which captures displaced VOC vapors whenever gasoline is being transferred.
- (20) All loading and vapor lines shall be equipped and maintained in good working order such that vapor tight fittings close automatically when disconnected and the pressure in the vapor collection system shall not be allowed to exceed +18 inches of water or a vacuum exceeding –6 inches of water. Pressure gauges shall be maintained to document compliance with this limit.
- (21) Gasoline loading shall be allowed only into tank trucks and trailers which have been properly certified pursuant to 40 CFR Part 60 Appendix A, Method 27 and maintained and labeled as vapor-tight in accordance with Maine Air Regulations Chapter 120.
- (22) Any tank truck carrying gasoline or which has carried gasoline as the most recent previous load shall utilize the vapor collection system during the entire loading process.
- (23) EMOC shall prevent VOC emissions from exceeding 100% of the lower explosive limit (LEL) obtained within one inch around any potential leak source of the tank truck, including all loading couplings, vapor lines and fittings employed in the transfer of gasoline per EPA Method 21.
- VOC emissions from the carbon adsorption system shall not exceed 35 milligrams of VOC per liter of product transferred.
- (25) EMOC shall conduct a VOC compliance test for the carbon adsorption system prior to June 15, 2003. EMOC shall submit a test notice to the regional inspector at least 30 days prior to the VOC compliance test. A report containing test results shall be submitted to the Department within 30 days of testing according to the requirements of the Department's stack test protocol.
- (26) EMOC shall not exceed the following petroleum product throughput at the loading rack (based on a 12-month rolling total).

gasoline: 200,000,000 gallons
 distillate 125,000,000 gallons

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- (27) EMOC shall not exceed a product loading rate of 230,000 gallons per 4 hour period.
- (28) Emission Limits
  - A. EMOC shall not exceed an emission limit of 49.9 tons per year of VOC based on a 12 month rolling total.
  - B. EMOC shall not exceed an emission limit of 9.9 tons per year of any single HAP or 24.9 tons per year for all HAPs combined, each based on a 12 month rolling total.
- (29) EMOC shall notify the Department within 48 hours and submit a report to the Department on a <u>quarterly basis</u> if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).
- (30) Annual Emission Statement

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

or

2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator

Maine DEP

Bureau of Air Quality 17 State House Station Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by September 1.

#### (31) Toxic Air Pollutants Emission Statement

In accordance with MEDEP Chapter 137, the licensee shall report, no later than September 1, every two years (1996,1998,etc.) or in a timeframe designated by the Department, the information necessary to accurately update the State's toxic

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air pollutants emission inventory by means of a written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator

Maine DEP

Bureau of Air Quality 17 State House Station Augusta, ME 04333-0017

Phone: (207) 287-2437

- (32) EMOC shall pay the annual air emission license fee within 30 days of March 31<sup>st</sup> of each year. Pursuant to 38 M.R.S.A. Section 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 M.R.S.A. Section 341-D, Subsection 3.
- (33) The term of this Order shall be for five (5) years from the signature below.

| DONE AND DATED IN AUGUSTA, MAINE THE       | S DAY OF                        | 2002. |
|--|---------------------------------|-------|
| DEPARTMENT OF ENVIRONMENTAL PROTEC         | CTION                           |       |
| BY:  |                                 |       |
| MARTHA G. KIRKPATRICK, COMMISS             | SIONER                          |       |
| PLEASE NOTE ATTACHED SHEET FO              | R GUIDANCE ON APPEAL PROCEDURES |       |
| Date of initial receipt of application:    | January 16, 1992                |       |
| Date of application acceptance:            | January 29, 1992                |       |
| Date filed with the Board of Environmental | Protection:                     |       |

This Order prepared by Lynn Ross, Bureau of Air Quality.